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From: Dave Hargett[i Ex. 6 Personal Privacy (PP)]
Sent: Mon 12/14/2020 9:23:16 PM (UTC)

Subject: ALERT re: Potential Hydrologic Influence on Some Non-Reedy River Tributary Locations

Robert / Jason

For your consideration, in your review of your upriver/upstream source data, here is a heads-up:

I cross-referenced the GoogleEarth sample locations that you provided with the Greenville County GIS with FEMA Floodplain Delineations turned on, and also with Topo Elevations turned on.

The notes below provide a rough visual call but it appears that several of your "yellow" denoted sample points on tributaries and not directly on the Reedy, are still well within the Floodway or the 100-yr Floodzone of the Reedy.

My analysis may be too rough to fully explain some of the data, but just be aware the Reedy floods viciously high and fast and energetically as an urban river, so there it is likely that some of these locations may have backwash up some of these small tribs with Reedy River floodwaters and associated sediments during high water events, some frequently, especially if they are in the "Floodway."

Where the Reedy Flood elevations didn't confuse sediment transport enough, manmade devices did in at least one case (see notes below re: Sample Location #223 just below the Falls).

I have some tributary streams within the basin that I watch that don't flood on their own, but when an even modest storm, like we had last nite (13 Dec), fills the channel of the Reedy, we can have backflow up those creeks. In some cases OOBE (out-of-bank-event) conditions develop and confuse things even more. Every storm and flood is a little different in terms of flow directions, depths of inundation, and velocities.

In some places the Reedy will top its banks, and short circuit to a nearby tributary so that suddenly a 40 ft wide Reedy becomes 2000 ft wide for a number of hours, or maybe a day or two. In the upper part of our Preserve, area of your samples 237, 238, and 239, for example, the water level with our Feb 2020 and May 2020 floods (roughly 10 year events) rose over 13 ft.... documented gage readings, and backed up floodwaters all the way to ReWa and Mauldin Rd, and well up Brush Creek (west side of Greenville).

Another example, in the "West Bay" of old Lake Conestee, flow can come from 3 completely different directions depending on the level of the Reedy River nearly a half mile away. So it is in this crazy urban floodplain.

So figuring out what came from where requires a whole bunch of hand-wringing.

That said, the results from some of these tributaries may not just reflect the CoC contributions from the tributary's sub-watershed. Backwash from the Reedy may explain some of the 'noise' in the tributary data, for at least some locations.

Other sites along the Reedy (much of it above the Falls was channelized historically when the railroads came in on both sides of the river) have been severely disturbed over the last 150 years, including some of the feeder tribs.

Urban hydrology..... gotta love it.

Our pitiful little hometown river, it's a mess.

Let me know if you have questions or need to link to the County's FEMA layers.

Happy Holidays, Dave

NON-RR FEMA

SAMPLE DELINEATION AREA

| LCP201 | FLOODWAY REEDY R. |
|---|--|
| LCP202 | FLOODWAY RR |
| LCP204 | FLOODWAY RR |
| LCP207 | FLOODWAY RR |
| LCP210 | 500-YR FLOODZONE RR |
| LCP215 | 100-YR FLOODZONE RR |
| LCP240 | NOT FLOODZONES (NOT BLUE LINE PERENNIAL STREAM) |
| LCP241 | 100-YR FLOODZONE RR |
| LCP217 | FLOODWAY RR |
| LCP218 | FLOODWAY RR |
| LCP220 | 100-YR FLOODZONE RR |
| LCP223 NOT IN FLOODZONES / But, NOTE THAT PRIOR TO THE CONSTRUCTION OF THE PRESENT DAY FALLS PARK, THERE WAS A SMALL LANDSCAPING FEATURE POND IMMEDIATELY ADJACENT TO THIS SAMPLE POINT. THERE WAS AN INTAKE PIPE AT THE TOP OF THE FALLS (RIVER RIGHT - SOMEWHERE I HAVE PHOTOS OF IT) THAT LITERALLY PIPED WATER DOWN TO THAT POND SO IT USED RIVER WATER AND NOT THE TINY INTERMITTENT SPRING ADJACENT TO THAT LOCATION. I WOULD SAY THERE IS A VERY GOOD CHANCE THIS LOCATION IS COMPROMISED BY THE RIVER, EVEN THOUGH IT IS NOT IN THE FLOODZONE THIS AREA WAS ALSO POTENTIALLY DISTURBED DURING CONSTRUCTION OF FALLS PARK (CA. 2005-06). | |
| LCP226 | NOT FLOODZONES / But NOTE: QUARRY CREEK DOWNSTREAM OF BROAD ST MGP |
| LCP227 | FLOODWAY RR |
| LCP229 | 500-YR FLOODZONE (NOT REEDY) |
| LCP230 | 100-YR FLOODZONE RR |
| LCP233 | FLOODWAY RR |
| LCP234 | FLOODWAY RR |
| LCP237 | FLOODWAY RR |
| | |

Ex. 6 Personal Privacy (PP)

Dave Hargett, Ph.D.

Founder & Executive Director

Conestee Foundation / Lake Conestee Nature Preserve

Ex. 6 Personal Privacy (PP)

uavewconesteepreservetorg

Conestee Foundation: a 501(c)(3) Conservation Organization - Established 2000

Owner & Steward of Lake Conestee Nature Preserve

LCNP: Celebrating 14 Years of Discovery!

An Important Bird Area of Global Significance Upstate Partner with Audubon - South Carolina

Lake Conestee: A National Register of Historic Places Site

http://conesteepreserve.org

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